

November 2013: Out Like a Lion?
Torrential Rains Flood Lower Valley, Winter's Chill Arrives for Final Full
Weekend

## Event, in Brief

Modified polar air swept from western Canada through the eastern slopes of the Rockies on November 20<sup>th</sup>, and sliced through the northern half of Texas on the 21<sup>st</sup>, and slammed through the Rio Grande Valley on the 22<sup>nd</sup>. The shallow cold air mass provided the necessary "wedge" for sufficient mid and upper level atmospheric energy to override; as the air mass arrived into the heart of the last of summertime tropical heat and humidity, the added moisture aided initial thunderstorms just in time for the afternoon school bus and commute. As the front undercut the storms, temperatures crashed from the September-like upper 80s into the November-like upper 50s in little more than an hour. Enhanced convergence behind the initial burst of heavy rain produced prolonged moderate to heavy rainfall with embedded lightning well into the evening; by midnight, 3 to 6 inches had fallen across much of the Highway 77/Interstate 69E corridor (above).

The heavy rains and modified polar chill slammed the door shut on the 2013 summer weather once and for all. Key impacts from the shift from summer to winter included the following:

- Active vertical motions just ahead of the front produced isolated thunderstorms with small hail, prior to the front's arrival
- Gusty winds from the north in excess of 45 mph, combined with blinding rainfall, may have contributed to the following between 3 and 8 PM on November 22:

- An older live oak tree crashed on a home in Harlingen, and others fell on power lines on South Padre Island
- More than 3,000 local utility customers were without power
- A 16-foot pleasure craft took on water near the Brownsville ship channel a couple hours after the front arrived (6 PM Nov. 22). Three on board were rescued
- Several accidents on roads and highways in the Lower Valley
- The postponement of the big Sharyland/Harlingen playoff game due to a foot or more of water on the field prior to scheduled kickoff
- o Initial reports of possible localized flash flooding in Harlingen, including "trashcans floating down the street", where more than 6 inches fell within a 6 to 7 hour period between 3 and 10 PM
- o Several inches of water washed into City Hall in Raymondville
- Temperatures were "rooted" to the 40s, with frequent wind chill temperatures between 35 and 40, for three days following the front. For the Valley, these three days (November 23-25) marked the first time since 1976 that temperatures failed to reach 50 in November in this case, from Harlingen to McAllen
- Surf temperatures at South Padre Island fell from 72 the morning of November 22 to 56 the morning of November 24, effectively ending the last of the summer "beach season".
- The multi day winter chill, which extended through Thanksgiving (November 28), ensured that November 2013's temperature would finish up to 3 inches below average across the Valley. Weekend temperatures in the 40s were more than 20 degrees below average, day and night combined.

Look for additional details on this story, including radar loops and additional graphics or photos, during the first week in December.